CLAIMS

1. A scanning probe inspection apparatus for detecting anomalies in a passive element out of a plurality of passive elements connected together to form a chain pattern intermittently exposing portions of said chain pattern to a surface of a chip, the scanning probe inspection apparatus comprising:

a bias voltage supplier for applying a bias voltage between both ends of said chain pattern;

two probes arranged at a spacing determined by a distance between said exposed portions of said pattern;

a detector for detecting a potential difference between said two probes; and

a scan section provided to cause said two probes to scan over a surface of a wafer containing said chip while keeping unchanged said spacing between said two probes.

2. The scanning probe inspection apparatus according to claim 1, wherein said plurality of passive elements are arranged at a given pitch and said two probes are spaced from each other a distance equal to or greater than twice said given pitch of said plurality of passive elements.

3. The scan type probe inspection apparatus according to claim 1, wherein said passive elements are through-holes and wherein said through holes are coupled to one another such that one upper interconnect line is coupled to an upper end of one through-hole out of adjacent through-holes and one lower interconnect line is coupled to a lower end of said one through-hole out of adjacent through-holes and a

lower end of the other through-hole out of adjacent through-holes, thereby forming a chain unit including said one upper interconnect line, said adjacent through-holes and said one lower interconnect line, and further, a plurality of chain units are coupled in series, and wherein said probes contact upper interconnect lines including said one upper interconnect line.

4. The scanning probe inspection apparatus according to claim 1, wherein said probe has a thin plate shaped base portion, a lever extending from said base portion and a needle formed at a distal end of said lever, wherein said base portion, lever and needle are formed by processing one of a semiconductor and a metal material.

5. The scanning probe inspection apparatus according to claim 4, wherein said needle is so formed as to be inclined from said distal end of said lever in a direction that said distal end points.

6. The scanning probe inspection apparatus according to claim 4, wherein said probe is formed by coating a surface of silicon with a conductive material.

7. The scanning probe inspection apparatus according to claim 6, wherein said conductive material is boron-doped diamond.